

Remarks

This preliminary amendment is filed with a request for Continued Examination (RCE) in order to formally present amendments to the claim set discussed with Examiner Garcia-Otero during a personal interview on July 21, 2004.

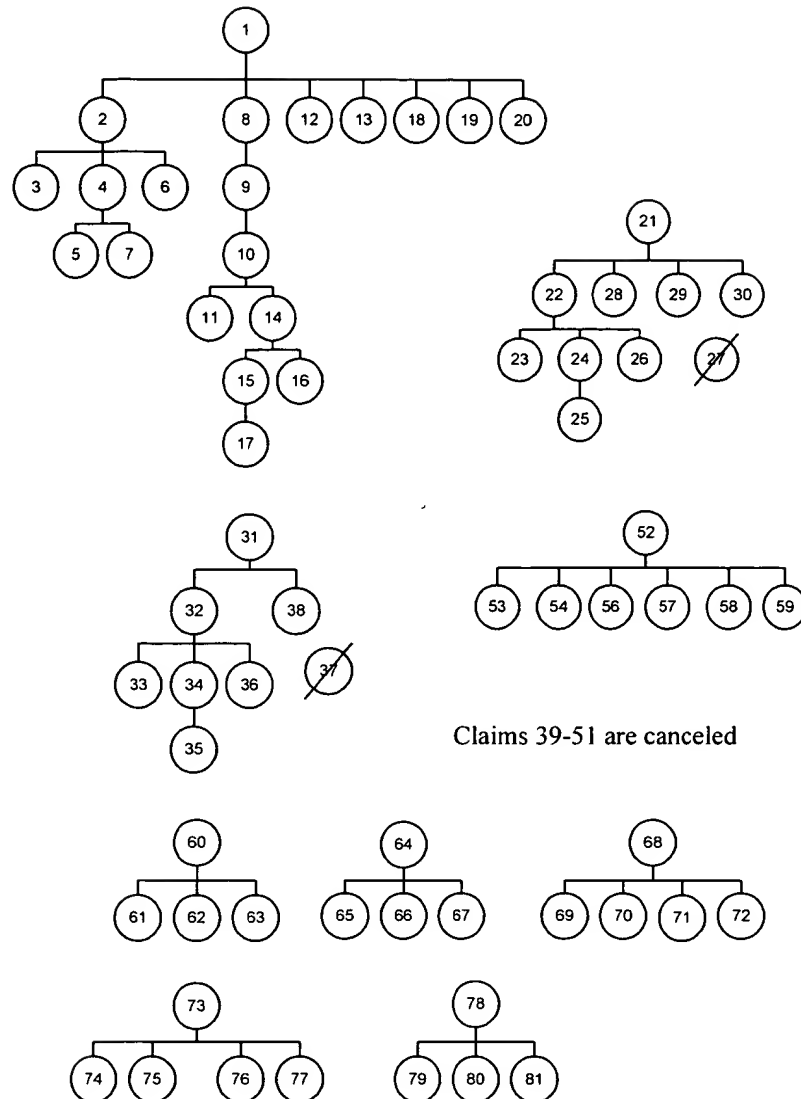
This preliminary amendment and RCE is responsive to a final Office action mailed February 10, 2004 in which all of the pending claims were rejected. However, the Examiner graciously identified allowable subject matter and proposed amendments to the claims in paragraphs 8-13 (pages 2-3) and 162-173 (pages 22-24) of the Office action and acknowledged the commercial success of the invention, giving it "substantial weight" (para. 17 at pages 3 and 4).

At the July 21 interview, applicants' representative John B. Conklin and one of the applicants LeRoy Hagenbuch presented proposed amendments to independent claims 1, 21, 31, 38, 52 and 60 that are in keeping with the suggestions in the Office action. As reflected in the Interview Summary of record prepared by the Examiner, agreement was reached at the interview that the independent claims would be allowable in the view of the examiner if the claims were "amended to Markush format with respect to choosing multiple angles of repose." Specifically, the examiner approved of a Markush grouping expressed as "a group consisting of" in the claims.

New claims were also presented and discussed at the interview, but no agreement was reached.

Although applicants respectfully disagree with the rejections of the claims as previously presented, the Examiner's helpful comments in the final Office action and the additional guidance resulting from the personal interview make it unnecessary in the applicants view to argue the rejections. Instead, applicants have attempted to accept the Examiner's suggestions for amending the claims and added new claims that are better tailored to the patentable subject matter identified in the office action.

Below is a diagram illustrating the relationship among the pending claims, comprising previously presented claims 1-26, 28-38 and 52-60 and new claims 61 - 81. Claims 27 and 39-51 have been previously canceled. Claim 37 is canceled herein.



In this Preliminary amendment, previously presented independent claims 1, 21, 52 and 60 have been amended to recite a Markush grouping of points of references from which angles of repose are measured. The claims further require selecting at least two of the angles for modeling the body. These amendments are consistent with the statements in the Office action at paragraphs 10 (page 3) and 162-166 (pages 22-23), identifying patentable subject matter, and consistent with the agreement reached during the personal interview as recorded in the Interview Summary.

Previously presented independent claim 31 is amended herein to reflect the suggestions in paragraphs 13 (page 3) and 167 (page 23). However, instead of incorporating the substance of claim 38 into claim 31 as proposed in paragraphs 13 and

167, applicants have incorporated the substance of claim 37, which is more in keeping with the Office action's comments regarding patentable subject matter in paragraphs 9-11 and 162-166.

This amendment also presents new claims 61-81. Claims 61- 63 depend from previously presented independent claim 60. New claims 64-81 include independent claims 64, 68, 73 and 78. These claims and their dependent claims are patterned on the previously presented independent claims, but they are more precisely aimed at the patentable subject matter identified at paragraphs 8-11 and 162-166 of the Office action. For example, claim 64 calls for collecting angle-of-repose data from at least two reference points in order to account for asymmetry of the load profile.

collecting data describing a shape of a heap of the material having front, back and two sides, where the data includes at least two angles of repose for the heaped material selected from a group of angles of repose consisting of (1) a front angle, (2) a back angle (3) a first side angle, and (4) a second side angle;

Claim 64.

Claim 68 is patterned after claim 31 as amended herein and is intended to more precisely recite the patentable subject matter as outlined in the Office action.

Claim 73 describes a body produced by a process in which data is collected that describes angles of repose of heaped material *in three dimensions*. In keeping with the comments in the Office action, the claim requirement of collecting angles of repose in three dimensions inherently assumes asymmetry of the load. As the Office action states, an assumption of asymmetry is "counterintuitive" (para. 162 at page 22) and not taught by the prior art.

collecting data describing angles of repose of heaped material in three dimensions, where the data is from a working environment for the haulage vehicle;

Claim 73.

Finally, new independent claim 78 describes modeling a shape of a load of material "*in three dimensions*" where the shape of the load is "*substantially conical*."

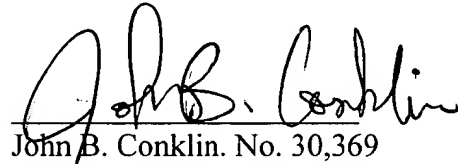
modeling a shape of a load of heaped material in three dimensions, where the shape is substantially conical

Claim 78. The conical shape of the load is described at page 2, lines 17-34.

Conclusion

With these amendments, the application is in good and proper form for allowance, and Examiner Garcia-Otero is respectfully requested to pass this application to issue. If, in the opinion of Examiner Garcia-Otero, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersign attorney.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "John B. Conklin".

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